Research Natural Areas Program

Eastern Region ◆ North Central Station ◆ Northeastern Station

WHAT ARE RESEARCH NATURAL AREAS?

Research Natural Areas (RNA's) are areas within National Forests that the Forest Service has designated to be permanently protected and maintained in natural condition. These protected natural areas include:

- unique ecosystems or ecological features
- rare or sensitive species of plants and animals and their habitat
- high-quality examples of widespread ecosystems

WHAT DO RESEARCH NATURAL AREAS CONTRIBUTE?

The national network of RNA's helps **protect biological diversity** at the genetic, species, ecosystem, and landscape scales.

RNA's that are representative of common ecosystems in natural condition **serve as baseline or reference areas**. To help answer resource management questions, the baseline areas of RNA's can be compared with similar ecosystems undergoing silvicultural or other management prescriptions. In this way, RNA's make an important contribution to ecosystem management.

RNA's are managed to maintain the natural features for which they were established, and to maintain natural processes. Because of the emphasis on natural conditions, they are excellent areas for **studying ecosystems** or their component parts and for **monitoring succession and other long-term ecological changes**. Non-manipulative research and monitoring activities are encouraged in RNAs and can be compared with manipulative studies conducted in other areas.

RNA's serve as **sites for low-impact educational activities**.

HOW MANY RNA's ARE THERE? WHERE ARE THEY? HOW BIG ARE THEY?

Currently there are 300 RNA's established nationally. Within the 15 National Forests of the Eastern Region, 40 RNA's have been established, and many candidate areas are listed in forest plans to be evaluated for possible designation as RNA's. During forest plan revisions, there will be opportunities to identify and evaluate additional candidate areas to represent ecosystems not presently protected by RNA's. Information gained from research and monitoring in RNA's, in turn, is vital in evaluating forest plans.

In 1931, The Bowl RNA (White Mountain National Forest, New Hampshire) was the first RNA to be established in the Eastern Region. Eastern Region RNA's range in size from 3,675 acres (McCormick RNA, Ottawa National Forest, Michigan) to 17 acres (Whoopie Cat Mountain RNA, Shawnee National Forest, Illinois). Smaller RNA's tend to protect unique or special features; larger RNA's protect landscapes of several ecosystems. The total acreage protected in established RNA's is 21,570 in the region and over 1/4 million nationwide.

WHO MANAGES RNA's?

RNA's are administered jointly by the National Forest System (National Forests) and Forest Service Research (North Central or Northeastern Forest Experiment Stations). The Regional Forester, with the concurrence of the Station Director, has the authority to establish RNA's. In consultation with Forest Supervisors and District Rangers, the Station Director approves research and monitoring activities and management plans for the RNA. However, if the RNA is located within a congressionally designated area such as a Wilderness, the Regional Forester approves these activities. The National Forest where the RNA is located has direct responsibility for day-to-day administration and management of the RNA.

Thus RNA's provide opportunities for cooperation between the National Forests and Research branches of the Forest Service.

CURRENT PROGRAM

The regional RNA program works within the framework of the National Research Natural Areas Strategy, circulated by the Chief of the Forest Service in July 1993. An effort is being made to integrate the RNA program fully with other National Forest and Research programs and planning. In particular, RNA programs are intended to highlight the contributions of RNA's to ecosystem management through the protection of biological diversity and the maintenance of ecological reference areas for the study of ecosystems. Recent program emphasis areas include:

* Identifying and evaluating additional candidate RNA's to provide a regional system of protected natural areas that represent natural communities and ecological units within the region.

* Monitoring long-term health of established RNA's through annual field checkups and through field sampling of ecosystem components (vegetation, flora, fauna, soils, aquatic).

* Addressing management questions by monitoring RNA's and similar ecosystems under different management regimes.

* Reviewing and tracking research, monitoring, and management activities proposed for RNA's to make sure they are compatible with protecting and maintaining the values for which RNA's are established.

FOR MORE INFORMATION

To apply to conduct research or management activities on an RNA

To learn more about the RNA Program

To obtain a list of canadidate RNA's in the Eastern Region

To volunteer to help with monitoring and management of RNA's

CONTACT: Regional Research Natural Areas Coordinator
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05/95

NORTH CENTRAL FOREST EXPERIMENT STATION

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Established Research Natural Areas

(as of 3/95)

STATE	NATIONAL FOREST	RNA	DATE	ACRES	DESCRIPTION
ILLINOIS	Shawnee	1. Panther Hollow	1989	180	Sandstone hollows, cliffs; dry, dry-mesic oaks; beech-maple forest
		2. Dennison Hollow	1989	205	Xeric and dry oak forests; barrens; sandstone glades, cliffs
		3. Atwood Ridge	1990	955	Dry, mesic forests; barrens; hill prairies
		4. Barker Bluff	1990	60	Glade and glade/forest complex; escarpment
		5. Cave Hill	1990	465	Xeric to dry-mesic oak forests; barrens; sandstone glades, cliffs; aquatic and terrestrial cave habitat
		6. Whoopie Cat Mountain	1990	17	Limestone cedar glade; dry oak forest; rugged hills
		7. Stoneface	1990	176	Sandstone cap of thrust fault, cliffs, glades; loess hill prairie; xeric to dry-mesic oak forest
		8. Ozark Hill Prairie	1991	535	Bluff ridge; hill prairie; dry, dry-mesic oaks; beech-maple, sassafras-persimmon forests
		9. Burke Branch	1991	206	Dry to mesic oaks; mesic barrens; juncture of Mississippi Embayment/Shawnee Hills
		10. LaRue-Pine Hills/Otter Pond	1991	2,585	14 natural communities (bottomland forests; ponds; swamps; bluffs; upland forests)
INDIANA	Hoosier	11. Pioneer Mothers	1944	88	Mixed mesophytic forest; walnut grove
MICHIGAN	Hiawatha	12. Dukes	1974	233	Upland and swamp conifers and hardwoods on glacial till plain
		13. Grand Island	1977	59	Northern hardwoods; sandstone cliff; lakeshore; creek bottomlands
	Huron-Manistee	14. Nordhouse Dunes	1987	795	Sand dunes; jack pine interdunal wetlands; swamps; hardwood dune forests
		15. Newago Prairies	1988	180	Dry sand prairie; oak, pine forests
	Ottawa	16. McCormick	1971	3,675	Northern hardwoods and conifers; conifer swamp; lakes
MINNESOTA	Chippewa	17. Pine Point	1932	1,239	Red, jack, and white pines
		18. Battle Point	1991	329	Sugar maple-basswood forest
		19. Stony Point	1991	404	Wet-mesic northern hardwoods
		20. Clustered Bur Reed	1991	79	Open and forested bog; shrub swamp; marsh
	Superior	21. Keeley Creek	1942	640	Black spruce, jack pine forests; sedge meadows; lake; streams
		22. Lac Lacroix	1942	973	Red, white pines; river; cliffs
		23. Shroeder	1973	360	Northern hardwoods; ash swamp; northern white-cedar swamp
		24. Marble Lake Lookout	1988	120	Northern hardwoods
NEW HAMPSHIRE	White Mountain	25. The Bowl	1931	510	Northern hardwoods
		26. Alpine Gardens	1989	100	Alpine tundra; black spruce-balsam fir krummholz
		27. Nancy Brook	1991	1,385	Spruce-fir forest; bogs, pond, streams; mountain summits
OHIO	Wayne	28. Reas Run	1975	77	Successional stages of Virginia pine
PENNSYLVANIA	Allegheny	29. Tionesta	1940	2,113	Hemlock-hardwoods/tornado effects
VERMONT	Green Mountain	30. The Cape	1993	290	Northern hardwoods

(continued)

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Established Research Natural Areas

(as of 3/95)

STATE	NATIONAL FOREST	RNA	DATE	ACRES	DESCRIPTION
WISCONSIN	Chequamegon	31. Moquah	1935	640	Jack pine-scrub oak barrens without fire
		32. Chequamegon Hardwoods	1988	80	Northern and swamp hardwoods; stream; exposed gabbro bedrock
		33. Twin Lake Bog	1989	38	Conifer swamp; seepage lakes and bog
		34. McCarthy Lakes & Cedars	1989	363	Lake; streams; northern white-cedar swamp; pines
		35. Spider Lake	1989	94	Hardwood swamp
		36. Memorial Grove Hemlocks	1989	64	Hemlock-hardwoods on pitted glacial moraine
		37. Tucker Lake Hemlocks	1991	158	Hemlock-hardwoods; conifer swamp; lowland brush; lakeshore; on glacial till
	Nicolet	38. Grandma Lake Wetlands	1991	495	Lake and open bog; conifer swamp; hardwoods on glacial outwash
		39. Bose Lake	1992	81	Hemlock-hardwoods; lakeshore
		40. McCaslin Mountain	1992	524	Hardwoods; perched wetlands; xeric ridgetop
TOTAL				21,570	

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